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## Indonesia

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### Indonesia Market Brief on Functional Beverage Ingredients 2010

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Product Brief

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**Report Highlights:**

The functional beverage industry in Indonesia presents a significant opportunity for U.S. ingredient exporters. In 2009 an estimated 1.6 billion dollars was generated by only 166 beverage firms. Post estimates that this 1.6 billion dollar figure accounts only about ten percent of the actual overall national production of functional beverages, as thousands of medium and small enterprises (SME) also produce functional beverage products, but do not release data. Imported functional ingredients include dairy proteins, vitamins, minerals, food-grade chemicals, sweeteners, emulsifiers, and flavoring agents which are required for production. Currently Indonesia does not have a domestic ingredients industry which is capable of supporting the demands of its domestic functional beverage industry.

**Executive Summary:**

In 2008, the Indonesian Center of Bureau Statistics (BPS) cited 6,316 registered medium to large scale food and beverage firms in Indonesia, with a combined total production value of 56.8 billion dollars. In 2009 production increased eight percent to 61.8 billion dollars. Post forecasts an additional 10 percent growth increase in 2010, valued at roughly 67.4 billion dollars. The beverage accounts for only 2.6 percent or 1.6 billion dollars, of the total food and beverage industry. This includes 35 major milk and milk-based beverage companies, and 131 soft drink (non-alcoholic) beverage companies. Among the beverage producers approximately 15 large manufactures produce functional beverages, targeting the population of 240 million people.

The functional beverages in this survey consist of processed, non-alcoholic, ready to drink (RTD), non-carbonated beverages. Some functional beverages also may be in powder form. The functional beverages in this report includes (A) milk flavored beverages, acidified/sour milk, yogurt drinks, and fermented milk drinks in plastic bottles, (B) nutrition supplement drinks, (C) powdered energy drinks in sachets, (D) flavored tea drinks, (E) fruit juice from concentrates, and (F) freshly made fruit juices. The total production of this industry in 2008 was 17.4 million liters valued at 45.9 million dollars. This reflects a 24 percent increase from 37 million dollars in 2007.

Although milk and dairy based beverages remain the leading functional beverages for people of all age groups, dairy only serves about 20 percent of the Indonesian population, due to price sensitivities. In 2006 dairy production was 41.7 million dollars. In 2007 it increased 32 percent to 54.6 million dollars, followed in 2008 by a 42 percent and 77.5 million dollar (BPS) jump. The Indonesian dairy industry produces 556,000-570,000 tons processed milk, which requires over 1.79 million tons of fresh milk (National Sec. 2009) every year. However, the national milk production only covers 23 percent of the industry's demand, with imports making up the 77 percent deficit. In 2008, between 200,000 and 250,000 tons of powdered milk was imported from Australia, New Zealand, and Canada (Trade Ministry, 2008). Opportunities for U.S. dairy exports to Indonesia are strong.

**General Information:****Market Situation****Demand and Consumption:****A. Milk Based Beverages – Targeting the Entire Population**

The dairy industry focuses its production on all socio-economic segments in order to meet sales objectives. Although dairy consumption remains low in Indonesia at only 9 liters/ per capita compared to Malaysia (27 liters) and the United States (88 liters) in 2009, it has actually tripled since 2000. Post expects that as more Indonesian people enter the middle class, milk and dairy consumption will continue to increase, as people will have more income to spend on improving their nutrition.

Approximately 2.9 million liters milk/day is needed to meet production demand; however the national milk production meets only 23 percent of the demand and 90 percent of fresh milk from local farmers is used by the largest processors in pasteurized and sterilized milk producers. The other milk-based drink manufactures are wholly dependant on imported milk powder (See Table 1). Therefore, the industry

uses ninety percent imported ingredients and ten percent local products.

**Table 1. List of Ingredients and Estimated Volume Utilized in Functional Beverage Industry**

<b>Ingredients</b>	<b>Annual Volume (MT)**</b>	<b>Type of Beverage Industry*</b>	<b>Origin</b>
Skim Milk Powder	6,500	A	USA
Sweet Whey Powder	9,120	A	USA/Europe
Anhydrous Milk Fat (AMF)	570	A	New Zealand, Australia
Full Cream	10,100	C	New Zealand, Australia, Europe
Non-Dairy Creamer	2,280	A	Local, China, Malaysia
Cocoa Powder	2,280	A	Local
Prebiotic Fiber Powder	45.6	A	Belgium
Colostrum Powder	25.2	A & B	USA
Whey Protein Concentrate (WPC 50-60)	1	B	Europe
Demineralized Whey	240	B	Europe
Vitamin C	167	D & E	Europe
Vitamin A, E, B1 to B12	70	E	
Emulsifier	216	B, C	China
Maltodextrin	650	B, C	China
Aspartame granule/powder & Sucralose	10 - 35	A, B, D, E	China
Flavoring (Chocolate, Peach, Apricot, Mixed Fruit, Apple, Mango, Strawberry, Grape, Blueberry, Lychee, Orange, Guava, Pineapple, Soursop, Vanilla, mungbean etc)	12 to 114 and 13,100 (Liters)	All	Local, China, France, and other European countries.
Oats	2,900	C	Australia
Fruit Concentrate: Apple, Orange, Guava, Mango, Pineapple, Soursop	10,813 and 308,000 (Liters)	E	Australia, Brazil, China, Austria, Taiwan, Local
Fruit Puree	84,000	E	Australia
Orange Sap	600	E	China
Fresh Fruits: <ul style="list-style-type: none"> <li>Orange Sunkist Valencia</li> <li>Strawberry</li> <li>Guava</li> <li>Kiwi</li> </ul>	3,200 72 24 30	F	<ul style="list-style-type: none"> <li>USA, Australia</li> <li>Local</li> <li>Local</li> <li>New Zealand, Italy</li> </ul>

\*(A) milk flavored beverages, acidified/sour milk, yogurt drink, and fermented milk drink in plastic bottles, (B) nutritive drink, (C) energy powdered drink in sachet, (D) flavored tea drinks, (E) fruit juice in tetra-pack packaging, and (F) freshly made fruit juice. \*\*Estimated volume based on U.S. FAS-Jakarta Survey Results, June-August, 2010 to five importers and six medium-large manufactures.

The manufactures of sterilized milk flavored beverages and acidified milk drink use skim milk, sweet whey and AMF without adding any preservatives or additives. Fiber and natural flavorings are added in order to increase shelf life. Colostrum powder is used to boost immune system and cell repair. The

products penetrate 80 percent of traditional markets and 20 percent modern market with 7 to 9 month shelf life. The size ranges between 80 ml to 120 ml targeting children with major preference to chocolate and strawberry flavor at the price of 0.07 to 0.12 dollars per bottle. The total value of the industry is 38.4 million dollars in 2007 with expectation of 25-30 percent annual growth in the next five years.

Yogurt drink manufacture uses mainly fresh milk, *Lactobacillus bulgaricus/delbrueckii*, *Streptococcus thermophilus*, sugar, pectin, flavoring, and natural coloring. Yogurt drink products and fermented milk drinks are sold mainly in modern markets, equipped with chillers and refrigeration. In the past few years, some large manufacture provided portable small display chiller to mom and pop vendors in Jakarta and greater areas. The industry is confident that they will achieve an additional 30 percent growth over the coming next three years.

#### B. Nutrition Supplement Drinks – 5 percent of the population

Some companies are beginning to produce liquid nutritive drink and powdered diet/healthy drinks as functional ‘food’ supplements. These products come in 120 ml plastic bottle, sachet, and box with marketing label to prevent infection or to increase immune system, allergy, osteoporosis, diabetes, and high cholesterol. The industry is targeting higher-end customers with main ingredients such as colostrum, demineralized whey, and WPC 50-60. Other functional ingredients are lysine, tryptophan, and IgG (immunoglobuline).

#### C. Energy Powdered Drink – all population

Some of the largest manufactures produce 18,437 tons of powdered drink with oat worth 9.8 million dollars (BPS) in 2007. People of all ages consume this easy to make drink containing fibers, carbohydrate, and dairy ingredients. The most popular flavor is chocolate, followed by vanilla and mung bean. This product typically comes in a 30g sachet. The products are available from modern hypermarkets, minimarkets, traditional markets, mom and pop type stores to street vendors throughout Indonesia.

#### D. Flavored Tea Drink – all population

In 2007 the industry produced 9 million liters of flavored tea drinks with the value at 4.3 million dollars (BPS). This product offers alternative of healthier drink fortified with vitamin C and has fruit flavor than sweet black tea. The preferable taste is blackcurrant with ideal size 200 – 250 ml tetra-pack or pouch packaging. Ninety percent of the products go to retail markets and 10 percent foodservice. Its shelf-life is up to 12 months, suitable for Indonesian people of which 50 percent of them have no refrigeration.

#### E. Fruit Juice in from Concentrate - all population

An estimate of 56.3 million liter of fruit juice from concentrates has been produced each year by about four manufactures. Most concentrates are imported from Australia and Brazil. Some tropical fruit juice concentrates are obtained locally. The packaging size is served at 200-250 ml in Tetrapack and pouch

packaging.

#### F. Fresh Fruit Juice – 3 percent population

The three main large-scale producers serve certain customers with the average capacity of 7 million liters of juice a year that goes to upscale retail outlets, with about 5 million liters going to food service. Packaging sizes for retail ranges from 280 ml to 600 ml while for foodservice is 1 liter to 2 liter bottles. The price ranges from 1.50 to 6 dollars, depending on the type of fruits extracted into juice. A single small producer can spend up to 400,000 dollars per year for imported ingredients. The first top juice is orange, almost 60 percent of total production.

#### **Advantages and Challenges for Functional Beverage Ingredients in Indonesia**

<b>Advantages</b>	<b>Challenges (<i>Barriers to US Export</i>)</b>
U.S. ingredients are famous for best quality products and consistent supply.	Price in general is much higher compare to other countries and domestic products.
Some ingredients cannot be produced domestically such as specific dairy ingredients.	The price sensitive industry will switch to less expensive imported ingredients.
Import tariff of around 5 to 10 percent for most beverage ingredients.	Aggressive introduction of new-to-market ingredients is highly expected by the industry.
Significantly high market potential, 37 million of upper and middle income customers.	Lack of infrastructure and transportation for food distribution.
The increasing number of modern upscale retail outlet requires a wide range of specialty beverages.	Tight competition from other countries such as European countries, Australia, New Zealand, and China.
There is a demand of functional ingredients for this industry.	U.S. suppliers are slow to respond to the industry requests of small quantities and/or technical assistance on ingredients specification and application
Once a long-term relationship with U.S. suppliers has established, the importation gets easier.	Lack of good long term relationship between US suppliers and local importers/agents which result in unfamiliar local custom, system and existing constraints.
Reputable importer/distributor exist for any U.S. food products for an expanding beverage ingredients industry	Complexity and uncertainty in import regulations, procedures, and custom clearance continues to be the major obstacles to U.S. ingredients product to enter this market.

#### Preference

In general consumers prefer powder-based milk and fruit drinks (80 percent) to fresh milk or fresh juice in Indonesia. Powdered drinks are more convenient and require no refrigeration, as half of the population owns none. However, the industry is quick to react by providing small to medium size display chillers to agents and small vendors (*warung*) to increase the shelf life of some milk-based beverages to stop spoilage and reach the targeted consumers. Higher income consumers prefer drinks

that include fresh fruit juice, nutritive drinks, and supplement drinks. They choose products based on quality and tend to be less price sensitive. They often follow Western trends, especially U.S. trends. This segment is the primary consumer for beverages with mixed berry or cappuccino flavor, fortified drinks with choline, colostrums, and other value added functional ingredients.

The rests of population is more price sensitive and pay less attention to product quality. The acceptable price range of any RTD beverage is from 0.06 to 0.35 dollars. They prefer Asian and tropical type of flavor such as lychee and mango for fruit based drinks. The two most popular powdered drinks are chocolate and strawberry flavored.

### Distribution

Jakarta is the main point of entry for all imported ingredients then followed by Surabaya in East Java serving the eastern part of Indonesia, then Medan and Aceh covering the western part of the country.

The largest population is on Java Island with approximately 142 million people.

The imported products are delivered directly to each manufacture or distributor which mostly located in Jakarta and throughout Java, only a few are outside Java and usually a SME type producers.

The 166 manufactures often distribute their products via pick-up truck for easier access through rough road conditions. The trucks deliver the products to modern retailers, minimarkets and traditional markets, agents, subagents, and street vendors. In remote areas sub distributors or agents play important role to the distribution of the products before reaching the end consumers.

### Barrier

In general U.S. products are high quality and maintain consistent supplies of ingredients, but higher prices for U.S. products can be a barrier to enter this very price sensitive market.

U.S. suppliers do not do enough to build relationship with Indonesian importers/agents or industries.

This makes it more difficult for them to consult local agents if they encounter problems in product application and adjustment. They are unable to further requests for any alternative product specification. If the problem continues on without solution then producers mostly will switch to other non-U.S. suppliers

The fluctuation of prices occurs frequently and can create problems in making purchasing decisions.

The industry needs to be informed on a regular basis regarding price trends and the market situation. This could be done online or via cooperator/assigned association.

In a few instances, some fresh fruit local importers purposely withhold some seasonal products for high bidders. Because of that, fruit juice companies often prefer concentrated fruit.

There is a lack of online information and it can be difficult to find lists of U.S. suppliers and distributors. Most suppliers online do not respond to any international inquiries.

The National Standardization Agency (SNI) requires tests for each product containing sugar, cocoa powder and other listed ingredient, which is time consuming and costly.

Regulations on the customs clearance for imported ingredients are inconsistent and overlapping.

In general, the major constraint remains at the distribution system in Indonesia, with a lack of cold storage facilities, unreliable shipping agencies, and poor transportation infrastructure.

### Competition

The long term relationship between Indonesia and New Zealand and Australia, has given them these countries a competitive advantage in the market in dairy-based ingredients and fruit concentrate for the beverage industry. The shorter geographical distance results in lower costs and shorter shipping time compared to that of the United States.

China is dominating almost every ingredient because of the low prices of Chinese products. Some Chinese products are half the price of similar products from the United States, Australia or Europe. The majority of beverage industries are considered to be SMEs, which is a great advantage for China.

European flavoring products have a strong reputation for excellence in Indonesia. Typically, Indonesian beverage producers prefer European products over U.S. or Australian products. However, U.S. products can compete strongly with similar European products if the price is more competitive.

### **Author Defined:**

### **Forecast and Future Development**

#### Rapid Growth

The entire industry expect 20 to 25 percent growth with exception for milk-based beverage in which they are very confidence to have an increase of 30 to 40 percent over the next three years. Other than their ongoing new product development and improved/well equipped distribution system, the rapid development of new modern retailers not only on Java but other islands contribute to the escalation of industry's total production.

Nutritive drinks are predicted to grow 40 percent or more, with ever increasing levels of percent urban professionals (National Economic Survey 2008) that have higher levels of education, more disposable incomes, and are more fully exposed to Western lifestyles. Also, more adults with health problems such as high cholesterol, high blood pressure, diabetes, osteoporosis are consuming functional beverages.

The fresh juice sectors forecasts levels of growth between 10-15 percent over the next five years with new product line by using organic fresh fruits and producing fortified juices. In addition, higher consumer awareness towards healthier urban living styles is a critical factor to this niche market.

### Other Opportunities

Other opportunities in this market include:

- One milk-based beverage producer is currently market-testing the meal replacement drinks (Ready-to-Drink) in 350ml plastic bottle that use skim milk powder (SMP), whey protein isolate (WPI), isolate soy protein (ISP) and dietary fiber as ingredients. It is estimated around 5 tons of SMP will be used, however the amount of WPI and ISP are yet to be determined. As of now the producer uses WPI and ISP from US for trial.
- Functional ingredients for various vitamins, minerals, pre-biotic and pro-biotic, dietary fiber, isoflavon (soy), inositol, lecithin, fitosterol, carnitine to choline are in demand for nutritive drink that has been a trend in the past 3 years.
- New powdered drinks in 26g sachet have been in the market this year containing main ingredients of milk powder, non-dairy creamer, and egg powder fortified by 10 vitamins and 9 minerals. This is actually a traditional drink of mixed fresh/powdered milk with raw eggs and honey. This powdered form is a lot less expensive (0.12 dollars) and easy to make. Current imports of U.S. egg powder are mainly for the bakery and snack industries. Therefore, beverage industry opens up opportunity to increase its import volume.
- The 166 medium to large beverage industries contribute only 10 percent of total production of the market while 90 percent of the industry is untapped and worth 14.3 billion dollars. This type of industry has an average capacity of producing 300,000 to 400,000 liters of fruit flavored drinks and fruit flavored jelly drinks (in plastic cup at 0.11 dollars) per factory. Over 200 similar factories use local ingredients and imported ingredients like sweeteners (sucralose) from China, dietary fiber (12 tons/year, from China), flavoring (1 ton/year from France and 30 tons/year from China). The industry is looking for other type of sweetener, fiber (cellulose), inulin, phosphate and demineralized whey from the United States. Ingredient like demineralized whey 90 (200 tons/year for a start) is needed by this industry that begins to produce milk flavored drink.
- Freshly made soymilk has become more popular in modern markets, but still in a small scale production, mainly home-based producer that has not been recorded by BPS. One high-end soymilk producer serves the high-end retail market and has utilized 24 tons of U.S. soybeans (16,200 dollars) on an annual basis for the past five years.
- Frozen/fresh various berries, blueberry, raspberry have the opportunity for fresh fruits and juice manufactures as health conscious consumers continuously look for new healthier products varieties. They are willing to pay the price for premium quality.

### **Government Policy**

- In addition to a 5 percent import duty, the Indonesian government imposes a 10 percent Value Added Tax (VAT) on all imported products including all basic ingredients for the functional beverage industry.
- Director General of Livestock (DGLS) requires the following documentation for importing beverage ingredients:



- Health Certificate must accompany each product at the point of entry, valid for two months and for one shipment only. It must be issued by U.S. Department of Agriculture and endorsed by any appointed services.
- Halal Certificate from country of origin is required and based on the Decree of The Indonesian Council of Ulama D-140/MUI/X/2009, October 15, 2009 The approved Halal Certification Agencies in the United States for certifying processed ingredients but not flavoring are:
  1. American Halal Foundation (AHF)
  2. Halal Food Council S.E.A
  3. Islamic Food and Nutrition Council of America (IFANCA)

## **Recommendations**

U.S. cooperators and U.S. suppliers should regularly organize technical seminars and training programs for the functional beverage industry. Arrange one-on-one consultation between the interested industry and US suppliers to address any technical and formulation application difficulties encountered by the industry.

Follow-up surveys on functional ingredients, flavoring, emulsifier, sweeteners and other food chemical is required to get better understanding on the application and amount used by this industry. One industry uses up to 4,900 tons annually for high priced products.

## **POST CONTACT AND FURTHER INFORMATION**

The U.S. Foreign Agricultural Service in Jakarta maintains up-to-date information covering food and agricultural import opportunities in Indonesia and would be pleased to assist in facilitating U.S. exports and entry to the Indonesia market. Questions or comments regarding this report should be directed to the U.S. FAS in Jakarta at the following address:

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